



FED EX NO. 7797 3524 7765

July 26, 2017

Technical Management Section
South Carolina Department of Health and Environmental Control
Bureau of Air Quality
2600 Bull Street
Columbia, SC 29201-1708

Re: 2017 Second Quarter CEM Report Summaries

Air Permit Number TV-2440-0005

Dear Sir or Madam:

Enclosed are the 2017 Second Quarter Continuous Emission Monitor Report Summaries and Title V monitoring report for Resolute Forest Products – Catawba Mill, Air Permit Number TV-2440-0005. Logs detailing each specific incident are also enclosed.

Based on information and belief formed after reasonable inquiry, I certify to the best of my knowledge, that the statements and information in this submission are true, accurate, and complete.

If there are any questions, please feel free to contact Mike Swanson at mike.swanson@resolutefp.com or (803) 981-8010.

Sincerely,

Wayne Griffin General Manager – Catawba Operations

Attachments: CEMS Logs

cc: Alex Latta, Region 3 Lancaster EQC Office

EPA Region 4

Environmental File 208.19

Title V Permit Unit ID 01 - Woodyard

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
01.1	1300	N/A	N/A	Refers to FW.4
01.2	1300	N/A	N/A	Refers to FW.4
01.3	1300	No	N/A	Refers to FW.4
01.4	1300	N/A	N/A	Refers to FW.1

Title V Permit ID 02 - Kraft Process - Kraft Pulp Mill

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
02.1	5210, 5220, 5230, 5240, and 5250	No	N/A	N/A
02.2(A)	5210 & 5230	Yes	Semi-annual	See below.
02.2(B)	5210 & 5230	N/A	N/A	Refers to 08.7.
02.3	5210, 5220, 5230, 5240, and 5250	N/A	N/A	Refers to MACT conditions.
02.4	5210, 5220, 5230, 5240, and 5250	N/A	N/A	Refers to FW.1.

Condition 02.2(A) Equip IDs 5210 and 5230

Reporting Frequency: Semi-Annually

There were no parameters outside the ranges listed in Attachment H for the scrubber (Control Device ID 5260C) during the semi-annual period.

Title V Permit ID 03 - Kraft Process: Kraft Bleach Plant

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
03.1	5300	Yes	Semi-annual	See note below.
03.2	5300	N/A	N/A	Refers to MACT conditions.
03.3	5300	N/A	N/A	Refers to FW.1

Condition 03.1 Equip ID 5300

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5. C. 03.1.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is continuous monitoring of specific scrubber parameters.
- Cause(s) and corrective action(s) are detailed on the enclosed logs.

There were two incidents during which a parameter was outside the maximum rate during the reporting period. See the enclosed log for details.

Title V Permit ID 04 – Kraft Process: Chlorine Dioxide Generator

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
04.1	1790	Yes	Semi-annual	See note below.
04.2	1790	No	N/A	N/A

Condition 04.1 Equip ID 1790

Reporting Frequency: Semi-Annually

There was no incident in which a surrogate monitoring parameter was outside the range for the chlorine dioxide scrubber (Control Device ID 1790C) during the semi-annual reporting period. See the enclosed log for details.

Title V Permit ID 05 - TMP Process

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
05.1	4400	No	N/A	N/A
05.2	4400	No	N/A	N/A

Title V Permit ID 06 - Paper Mill

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
06.1(A)	2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704	N/A	N/A	Refers to FW.4.
06.1(B)	2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704	Yes	Semi-annual	See note below.
06.2(A)	2010, 4610, 4120, 4130, & 9900	No	N/A	N/A
06.2(B)	4120 & 4130	Yes	Semi-annual	See note below.
06.3(A)	2010	No	N/A	N/A
06.3(B)	4120 & 4130	Yes	Semi-annual	See note below.
06.3(C)	4610	Yes	Semi-annual	See note below.
06.3(D)	9900	Yes	Semi-annual	See note below.
06.4	4110	Yes	Semi-annual	See note below.
06.5(A)	2010	No	N/A	N/A
06.5(B)	4120 & 4130	Yes	Semi-annual	See note below.
06.5(C)	4610	Yes	Semi-annual	See note below.
06.5(D)	9900	Yes	Semi-annual	See note below.
06.6(A)	4610	Yes	Semi-annual	See note below.
06.6(B)	9900	Yes	Semi-annual	See note below.
06.7	4110	No	N/A	N/A
06.8	2010	No	N/A	N/A
06.9	2000, 2010, 2100, 4600, 4610, 4100, 4110, 4120, & 4130	N/A	N/A	Refers to FW.1
06.10	2005, 2010, 4605, & 4610	N/A	N/A	Refers to MACT conditions

Condition 06.1(B) Equip IDs 2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704

Reporting Frequency: Semi-Annually

During the reporting period, no abnormal dust emissions were noted on daily inspection reports during the semi-annual period.

Condition 06.2(B) Equip IDs 4120 & 4130

Reporting Frequency: Semi-Annually

Kerosene was not utilized in the Hot Oil Heating System (4130); therefore, no visual inspections were performed during the reporting period. The Infrared Dryer (4120) was removed from service at the end of May 2013.

Condition 06.3(B) Equip IDs 4120 & 4130

Reporting Frequency: Semi-Annually

The Infrared Dryer (4120) was removed from service at the end of May 2013. Monthly fuel usages of natural gas, kerosene, and propane for the Hot Oil Heating System (4130):

No. 3 Paper Machine Hot Oil Heater Fuel Usage (ID 4130)

Month	Natural Gas (MMBtu)	Propane	Kerosene
	, ,	(gallons)	(gallons)
December-15	5,336	0	0
January-16	5,037	0	0
February-16	4,421	0	0
March-16	4,535	0	0
April-16	4,455	0	0
May-16	3,705	0	0
June-16	2,752	0	0
July-16	2,849	0	0
August-16	3,096	0	0
September-16	3,446	0	0
October-16	4,406	0	0
November-16	4,122	0	0
December-16	4,330	0	0
January-17	4,022	0	0
February-17	4,227	0	0
March-17	3,926	0	0
April-17	3,387	0	0
May-17	3,343	0	0
June-17	2,653	0	0

Condition 06.3(C) Equip ID 4610

Reporting Frequency: Semi-Annually

Monthly fuel usages of kerosene and propane for the No. 2 Coater Dryer (4610) are shown below:

	Kerosene	12-Month	Propane	12-Month
	(gallons)	Sum	(gallons)	Sum
December-15	0	18,669	0	0
January-16	0	18,669	0	0
February-16	0	0	0	0
March-16	0	0	0	0
April-16	0	0	0	0
May-16	0	0	0	0
June-16	0	0	0	0
July-16	0	0	0	0
August-16	0	0	0	0
September-16	0	0	0	0
October-16	0	0	0	0
November-16	0	0	0	0
December-16	0	0	0	0
January-17	0	0	0	0
February-17	0	0	0	0
March-17	0	0	0	0
April-17	0	0	0	0
May-17	0	0	0	0
June-17	0	0	0	0

Condition 06.3(D) Equip ID 9900

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas and propane for the Paper Machine Make-Up Air Units (4610) are shown below:

	Natural Gas 12-Month		Propane	12-Month
	(scf)	Rolling Sum	(gallons)	Rolling Sum
December-15	5,008,259	38,921,364	0	0
January-16	10,241,660	38,497,969	0	0
February-16	8,327,449	35,265,612	0	0
March-16	3,566,100	35,532,047	0	0
April-16	1,619,512	36,809,298	0	0
May-16	57	36,809,355	0	0
June-16	222	36,809,572	0	0
July-16	1,213	36,810,777	0	0
August-16	43	36,810,568	0	0
September-16	0	36,810,430	0	0
October-16	3,609,657	37,410,423	0	0
November-16	4,607,148	36,981,319	0	0
December-16	9,418,206	41,391,266	0	0
January-17	5,667,088	36,816,695	0	0
February-17	3,658,726	32,147,972	0	0
March-17	4,431,293	33,013,166	0	0
April-17	3,298,082	34,691,736	0	0
May-17	4,110,881	38,802,561	0	0
June-17	1,482,123	40,284,461	0	0

Condition 06.4 Equip ID 4110

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas, kerosene, and propane for the Air Floatation Dryer (4110) are shown below:

Month	Natural Gas MMBtu	Propane (gallons)	Kerosene (gallons)	PM / MMBtu
December-15	9,403	0	0	0.0076
January-16	8,878	0	0	0.0076
February-16	7,792	0	0	0.0076
March-16	7,992	0	0	0.0076
April-16	7,851	0	0	0.0076
May-16	6,530	0	0	0.0076
June-16	4,851	0	0	0.0076
July-16	5,022	0	0	0.0076
August-16	5,456	0	0	0.0076
September-16	6,074	0	0	0.0076
October-16	7,765	0	0	0.0076
November-16	7,265	0	0	0.0076
December-16	7,632	0	0	0.0076
January-17	7,088	0	0	0.0076
February-17	7,449	0	0	0.0076
March-17	6,920	0	0	0.0076
April-17	5,970	0	0	0.0076
May-17	5,891	0	0	0.0076
June-17	4,677	0	0	0.0076

The Air Floatation Dryer demonstrated compliance with the BACT limit of 0.0164 lb PM per million BTU.

Condition 06.5(B) Equip IDs 4120 & 4130

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas, kerosene, and propane for the Hot Oil Heating System (4130) are shown for condition 5C.06.3(B) above. The Infrared Dryer (4120) was removed from service at the end of May 2013.

Condition 06.5(C) Equip ID 4610

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas, kerosene, and propane for the No. 2 Coater Dryer (4610) are shown for condition 5C.06.3(C) above.

Condition 06.5(D) Equip ID 9900

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas and propane for the Paper Machine Make Up Air Units (4610) are shown for condition 5C.06.3(D) above.

Condition 06.6(A) Equip ID 4610

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas, kerosene, and propane for the No. 2 Coater Dryer (4610) are shown for condition 5C.06.3(C) above.

Condition 06.6(B) Equip ID 9900

Reporting Frequency: Semi-Annually

Monthly fuel usages of natural gas and propane for the Paper Machine Make Up Air Units (4610) are shown for condition 5C.06.3(D) above.

Title V Permit ID 07 - Chemical Recovery

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
07.1(A)	2400, 2402, 2500, 5100	No	N/A	N/A
07.1(B)	2515, 2520, 5115, 5120, 2700, 2701, 2702, & 2703	N/A	N/A	Refers to FW.4
07.1(C)	2700 & 2701 (2725C)	No	N/A	N/A
07.2(A)	2505 & 2723	Yes	Semi-annual	See note below.
07.2(B)	2510 & 5110 (2511C)	Yes	Semi-annual	See note below.
07.3	5105	Yes	Semi-annual	See note below.
07.4(A)	2505	N/A	N/A	Refers to MACT conditions
07.4(B1)	2505	N/A	N/A	Refers to MACT conditions
07.4(B2)	2505	No	N/A	N/A
07.5(A)	2510	N/A	N/A	Refers to MACT conditions
07.5(B1)	2510	N/A	N/A	Refers to MACT conditions
07.5(B2)	2510	No	N/A	N/A
07.6(A)	5105	N/A	N/A	Refers to MACT conditions
07.6(B1)	5105	N/A	N/A	Refers to MACT conditions
07.6(B2)	5105	No	N/A	N/A
07.6(C)	5105	N/A	N/A	Refers to FW.3.
07.7(A)	5110	N/A	N/A	Refers to MACT conditions.
07.7(B)	5110	N/A	N/A	Refers to MACT conditions.
07.8(A)	2723	N/A	N/A	Refers to MACT conditions.
07.8(B)	2723	N/A	N/A	Refers to MACT

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
		•		conditions.
07.0(C1)	2722	NI/A	NI/A	Refers to MACT
07.8(C1)	2723	N/A	N/A	conditions.
07.9(A)	2725C	No	N/A	N/A
07.9(B)	2726C & 2724C	No	N/A	N/A
07.9(C)	2724C, 2725C & 2726C	Yes	Semi-annual	See note below.
07.10(A)	5105 & 2723	No	N/A	N/A
07.10(B)	2723	No	N/A	N/A
07.10(C)	5105	No	N/A	N/A
07.10(D1)	2723	N/A	N/A	Refers to FW.2.
07.10(D2)	2723	N/A	N/A	Refers to FW.3.
07.10(D3)	5105	N/A	N/A	Refers to FW.3.
07.11(A)	5105 & 2723	No	N/A	N/A
07.11(B1)	2723	No	N/A	N/A
07.11(B2)	5105	No	N/A	N/A
07.11(C1)	2723	N/A	N/A	Refers to FW.2.
07.11(C2)	2723	N/A	N/A	Refers to FW.3.
07.11(C3)	5105	N/A	N/A	Refers to FW.3.
07.12(A)	5105 & 2723	No	N/A	N/A
07.12(B)	5105 & 2723	Yes	Semi-annual	See note below.
07.12(C1)	2723	N/A	N/A	Refers to FW.2.
07.12(C2)	2723	N/A	N/A	Refers to FW.3.
07.12(C3)	5105	N/A	N/A	Refers to FW.3.
07.13(A)	5260 (5260C)	N/A	N/A	Refers to 02.2.
07.13(B)	2400, 2500, 5100, & 5260	N/A	N/A	Refers to 08.7.
07.14	2505	Yes	Semi-annual	See note below.
07.15	5105	Yes	Semi-annual	See note below.
07.16(A)	2510	Yes	Semi-annual	See note below.
07.16(B)	5110	Yes	Semi-annual	See note below.
07.17(A)	2723	Yes	Semi-annual	See note below.
07.17(B1)	2723	N/A	N/A	Refers to FW.2.
07.17(B2)	2723	N/A	N/A	Refers to FW.3.
07.18(A1)	2723	N/A	N/A	See note below.
07.18(A2)	2723	N/A	N/A	Refers to FW.3.
07.19	2400, 2700, 2701, 2702, 2723, 5105, 5110, & 5115	N/A	N/A	Refers to FW.1.
07.20 & 0.7.21	2400, 2500, & 5100	N/A	N/A	Refer to MACT conditions.
07.22	2505, 2110, 2723, 5105, & 5110	N/A	N/A	Refer to MACT conditions.

Condition 07.2(A) Equip IDs 2505 & 2723

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

• The specific permit condition for which exceptions are being noted is 5C.07.2.

- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

There were no three-hour opacity episodes for the No. 2 Lime KiIn (ID 2723) during the semi-annual reporting period.

There were no three-hour opacity episodes for the No. 2 Recovery Furnace (ID 2505) during the semi-annual reporting period.

A summary is listed below for the continuous opacity monitoring downtime and excess emissions for the reporting period.

Continuous Opacity Monitoring - No. 2 Recovery Furnace

	1st Quarter	2nd Quarter	Semi-Annual Period
Monitor Downtime	1.17 %	0.26 %	0.70 %
Excess Emission	0.00 %	0.05 %	0.03 %
Overall Compliance	98.83 %	99.68 %	99.27%

Continuous Opacity Monitoring - No. 2 Lime Kiln

	1st Quarter	2nd Quarter	Semi-Annual Period
Monitor Downtime	0.35 %	2.39 %	1.39 %
Excess Emission	0.05 %	0.11 %	0.08 %
Overall Compliance	99.60 %	97.50 %	98.53 %

Condition 07.2(B) Control Device ID 2511C

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5C.07.2.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there were two related instances of deviation from the scrubber monitoring ranges. See the enclosed log for details.

Condition 07.3 Equip ID 5105

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5. C. 07.3.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

There were no three-hour opacity episodes during the semi-annual reporting period.

A summary is listed below for the continuous opacity monitoring downtime and excess emissions for the reporting period.

Continuous Opacity Monitoring - No. 3 Recovery Furnace

	1st Quarter	2nd Quarter	Semi-Annual Period
Monitor Downtime	0.14 %	0.31 %	0.23 %
Excess Emission	0.00 %	0.03 %	0.02 %
Overall Compliance	99.85 %	99.67 %	99.76 %

Condition 07.9(C) Control Device IDs 2724C, 2725C, & 2726C

Reporting Frequency: Semi-Annually

For the Slaker Scrubber (ID 2725C), there were no variations of a surrogate monitoring parameter during the semi-annual period.

No abnormal dust emissions were noted on the daily logs for the lime silos baghouses (IDs 2724C and 2726C) during the semi-annual reporting period.

Condition 07.12(B) Equip IDs 2723 & 5105

Reporting Frequency: Semi-Annually

The lime kiln modifications authorized by Construction Permit 2440-0005-DA have not occurred; therefore the requirements of this condition applicable to the No. 2 Lime Kiln (ID 2723) are not yet applicable.

The required data is recorded for the No. 3 Recovery Furnace (ID 5105). A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

Continuous NOx Emissions Monitoring - No. 3 Recovery Furnace

	1st Quarter	2nd Quarter	Semi-Annual Period
Monitor Downtime	2.27 %	1.20 %	1.72 %
Excess Emission	0.00 %	0.00 %	0.00 %
Overall Compliance	97.73 %	98.80 %	98.28 %

Condition 07.14 Equip ID 2505

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.14.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

Continuous Emissions Monitoring - No. 2 Recovery Furnace

	1st Quarter	2nd Quarter	Semi-Annual Period
Monitor Downtime	0.28 %	1.28 %	0.80 %
Excess Emission	0.00 %	0.00 %	0.00 %
Overall Compliance	99.72 %	98.72 %	99.20 %

Condition 07.15 Equip ID 5105

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.15.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

Continuous Emissions Monitoring - No. 3 Recovery Furnace

	1st Quarter	2nd Quarter	Semi-Annual Period
Monitor Downtime	2.44 %	1.24 %	1.82 %
Excess Emission	0.00 %	0.00 %	0.00 %
Overall Compliance	97.56 %	98.76 %	98.18 %

Condition 07.16(A) Equip ID 2510

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.16.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation within surrogate monitoring parameters
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there were two related instances of scrubber monitoring range deviation.

Condition 07.16(B) Equip ID 5110

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5. C. 07. 16.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation within surrogate monitoring parameters.
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there were two related instances of scrubber monitoring range deviation.

Condition 07.17(A) Equip ID 2723

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5. C. 07. 17.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period.

Continuous Emissions Monitoring – No. 2 Lime Kiln

	1st Quarter	2nd Quarter	Semi-Annual Period
Monitor Downtime	0.57 %	2.67 %	1.65 %
Excess Emission	0.00 %	0.00 %	0.00 %
Overall Compliance	99.43 %	97.33 %	98.35 %

Condition 07.18(A1) Equip ID 2723

The lime kiln modifications authorized by Construction Permit 2440-0005-DA have not occurred; therefore the requirements of this condition applicable to the No. 2 Lime Kiln (ID 2723) are not yet applicable. If/when the modifications occur, Facility-Wide condition FW.2 will apply.

Title V Permit ID 08 - Utilities

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
08.1(A)	2550	N/A	N/A	Refers to FW.4.
08.1(B)	2605 & 3705	Yes	Quarterly	See note below.
08.2(A)	2550	N/A	N/A	Refers to FW.4.
08.2(B1)	2605 & 3705	Yes	Semi-annual	See note below.
08.2(B2)	2605 & 3705	No	N/A	N/A
08.2(C)	2605 & 3705	No	N/A	N/A
08.3(A)	2550	No	N/A	N/A
08.3(B)	2605 & 3705	No	N/A	N/A
08.4	2550	Yes	Quarterly	Submitted under separate cover.
08.5	2605 & 3705	Yes	Annual	Submitted under separate cover.
08.6	2605 & 3705	Yes	Semi-annual	See note below.
08.7	2605, 3705, 5260, 5270, & 9820	Yes	Semi-annual	See note below.
08.8	2605, 3705, 5260, 5270, & 9820	N/A	N/A	Refers to MACT conditions.

Condition 08.1(B) Equip IDs 2605 & 3705

Reporting Frequency: Quarterly

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5. C. 08. 1.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous opacity monitoring monitor downtime and excess emissions for the quarter. The precipitator bypass minutes are also listed below.

Continuous Opacity Monitoring

	No. 1 Combination Boiler (ID 2605)	No. 2 Combination Boiler (ID 3705)
Monitor Downtime	1.18 %	0.12 %
Excess Emissions	0.02 %	0.10 %
Overall Compliance	98.80 %	99.79 %
Precipitator Bypass	862 minutes	87 minutes

There were no periods of 3-hour opacity episodes during the quarter for either boiler.

There was only one trip of the precipitator for No. 1 Combination Boiler, and no trips of the precipitator for No. 2 Combination Boiler within the quarter. Specific details are on the enclosed logs for each boiler.

Condition 08.2(B1) Equip IDs 2605 & 3705

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.08.2.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous opacity monitoring monitor downtime and excess emissions for the semi-annual reporting period. The precipitator bypass minutes are also listed below.

Continuous Opacity Monitoring

	No. 1 Combination Boiler (ID 2605)	No. 2 Combination Boiler (ID 3705)
Monitor Downtime	0.70 %	1.14 %
Excess Emissions	0.03 %	0.10 %
Overall Compliance	99.26 %	98.76 %
Precipitator Bypass	1120 minutes	658 minutes

There was one trip of the precipitator for No. 1 Combination Boiler and one brief trip of the precipitator for No. 2 Combination Boiler within the semi-annual period. Specific details are on the enclosed logs for each boiler.

Condition 08.6 Equip IDs 2605 & 3705

Reporting Frequency: Semi-Annually

Tire-derived fuel (TDF) rate records for the semi-annual reporting period indicate that there were no rates above the 1.5-TPH limit.

Condition 08.7 Equip IDs 2605, 3705, 5260, 5270, & 9820

Reporting Frequency: Semi-Annually

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5. C. 08.7.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is positive operation of flame failure system and vent valve position.
- Cause and corrective actions are detailed on the enclosed logs.

During the semi-annual period, there were 23 vents of the low volume high concentration (LVHC) gas system, and 32 vents of the high volume low concentration (HVLC) gas system, due to a variety of causes.

Note: Reports required under 40 CFR Part 60 Subpart S and General Provisions are being submitted separately to the Air Toxics Group. A copy is attached to this report for your review.

Title V Permit ID 09 - Waste Treatment

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
09.1(A)	9800 & 9801	No	N/A	N/A
09.1(B)	2902 through 2905	N/A	N/A	Refers to FW.4
09.2	2902 through 2905	No	N/A	N/A
09.3	2903	Yes	Semi-annual	See note below.
09.4	9801	N/A	N/A	Refers to 08.7
09.5	9801	N/A	N/A	Refers to MACT conditions

Condition 09.3 Equip ID 2903

Reporting Frequency: Semi-Annually

Monthly records indicate the No. 1 Holding Basin Pump No. 2 did not operate more than 7000 hours per year.

Title V Permit ID 10 - Storage Tanks

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
10.1	1100	No	N/A	N/A
10.2	1100	No	N/A	N/A

Title V Permit ID 11 - Miscellaneous

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
11.1	2900 & 1000	N/A	N/A	Refer to FW.4

Facility Wide Conditions

Condition	Equip ID	Reporting Required?	Reporting Frequency	Comment
FW.1	All	No	N/A	N/A
FW.2	2723	Yes	Semi-annual	See note below.
FW.3	2723 & 5105	No	N/A	N/A
FW.4	1300, 2000, 2005, 4600, 4605, 4100, 4110, 9700, 9701A, 9701B, 9702, 9703, 9704, 2000, 4610, 4120, 4130, 9900, 2515, 2520, 5115, 5120, 2700, 2701, 2702, 2703, 2550, 2902, 2903, 2904, 2905, 2900, & 1100	Yes	Semi-annual	See note below.
FW.5 FW.6	5210, 5240, 2400, 5100, 5260, 5260C,	Yes	Semi-annual	See notes below.
FW.7	2605, & 3705	No	N/A	N/A

Condition FW.2 Equip ID 2723

Reporting Frequency: Semi-Annually

Lime Kiln production rates are shown below:

Month	Kiln Production TPD	12- Month Rolling Avg
December-15	316	333
January-16	299	331
February-16	357	335
March-16	239	342
April-16	377	345
May-16	416	347
June-16	346	344
July-16	248	333
August-16	347	329
September-16	394	336
October-16	401	341
November-16	299	337
December-16	287	334
January-17	390	342
February-17	379	344
March-17	316	350
April-17	281	342
May-17	373	338
June-17	432	346

The 12-month rolling sum for lime kiln operation did not exceed the 465-ton per day limit during the reporting period.

Condition FW.4

Equip IDs 1300, 2000, 2005, 4600, 4605, 4100, 4110, 9700, 9701A, 9701B, 9702, 9703, 9704, 2000, 4610, 4120, 4130, 9900, 2515, 2520, 5115, 5120, 2700, 2701, 2702, 2703, 2550, 2902, 2903, 2904, 2905, 2900, & 1100

Visual emissions inspections were conducted on the sources listed below and the frequencies indicated.

Visual emissions inspections were conducted on the sources listed below and the frequencies indicated. There were no incidences of abnormal VE results during the semi-annual reporting period.

Condition FW.5(A1) Equip ID 5260C

Reporting Frequency: Semi-Annually

Reporting Frequency: Semi-Annually

Records of liquid flow and liquid pH are maintained. There were no incidences of variances from established parameters during the reporting period.

Condition FW.5(A2) Equip IDs 5210, 5240, 2400, 5100, 5260, 5260C, 2605, & 3705

Reporting Frequency: Semi-Annually

Records of the combination boiler that is combusting NCG streams, the daily bark fired in each combination boiler, and the daily Kraft pulp production are maintained. The daily bark/Kraft pulp production ratio and the 30-day rolling average ratio are calculated. There were no incidences of variances from the minimum level during the reporting period.

Condition FW.5(C) Equip IDs 5210, 5240, 2400, 5100, 5260, 5260C, 2605, & 3705

Reporting Frequency: Semi-Annually

Records of monthly and 12-month rolling sums of SO_2 emissions are maintained. There were no incidences of monthly 12-month sums above the annual SO_2 PSD BACT limit during the reporting period.

Condition FW.6 Equip IDs 5210, 5240, 2400, 5100, 5260, 5260C, 2605, & 3705

Reporting Frequency: Semi-Annually

Records of monthly and 12-month rolling average of unbleached pulp production are maintained. There were no incidences of rolling 12-month averages above the production limit during the reporting period.

Conditions for MACT Affected Sources

Condition	Equip I D	Reporting Required?	Reporting Frequency	Comment
MACT.1(C)	5210, 5220, 5230, 5240, 5250, 2400, 2500, 5100, 2605, & 3705	Yes	Semi-annual	See note below.
MACT.2(A)	5210, 5220, 2400, 2500, 5100, 9800, & 9801	Yes	Semi-annual	See note below.
MACT.3(A)	5300	Yes	Semi-annual	See note below.
MACT.4	5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 5100, 2605, 3705, 9800, & 9801	No	N/A	N/A
MACT.5(A2)	2505, 2723, & 5105	Yes	Quarterly	See note below.
MACT.5(C)	2510 & 5110	Yes	Quarterly	See note below.
MACT.6	2010 & 4610	Yes	Semi-annual	See note below.
MACT.7	5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 2505, 2510, 2723, 5100, 5105, 5110, 9800, & 9801	No	N/A	N/A
MACT.8, MACT.9, & MACT.10	5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 2505, 2510, 2723, 5100, 5105, 5110, 2605, 3705, 9800, & 9801	No	N/A	N/A

Condition M ACT.1(C) Equip IDs 5210, 5220, 5230, 5240, 5250 2400, 2500, 5100, 2605, & 3705

Reporting Frequency: Semi-Annually

Excess emissions and CMS downtime were less than 1% and 5% respectively for all systems. See the attached MACT I report for details.

Condition MACT.2(A) Equip IDs 5210, 5220, 2400, 2500, 5100, 9800, & 9801

Reporting Frequency: Semi-Annually

Condensate Collection and Treatment System excess emissions were greater than 1% of the semi-annual period operating time. CMS downtime was less than 5% of operating time. See the attached MACT I report for details.

Condition MACT.3(A) Equip ID 5300

Reporting Frequency: Semi-Annually

Excess emissions and CMS downtime were less than 1% and 5% respectively for all systems. See the attached MACT I report for details.

Condition MACT.5(A2) Equip IDs 2505, 2723, & 5105

Reporting Frequency: Quarterly

The record of exceedances is provided in the attached MACT II report.

Condition MACT.5(C) Equip IDs 2510 & 5110

Reporting Frequency: Quarterly

The record of exceedances is provided in the attached MACT II report.

Condition MACT.6 Equip IDs 2010 & 4610

Reporting Frequency: Semi-Annually

See the attached POWC MACT report.



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CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Kraft Process - Bleach Plant Scrubber

Report Period 1/1/17 to 6/30/17

Permit Conditions: 5.C.03.1 & MACT.3(A)

This report is for variations outside of surrogate monitoring parameters or permit condition exceptions.

Inci-		Start	Parameter				
dent No.	ent Date Time (am		pH, Flow, delta P	Duration (Minutes)	Nature and Cause of Incident	Corrective Action	
1	1/17/2017	10:00 PM	рН	180	Could not get sufficient flow of white liquor to scrubber due to chemical demand of D1 washer and BPS	Troubleshot conditions, added caustic manually to increase pH	
2	1/25/2017	2:00 AM	Flow	300	Recirculation flow rate dropped due to plugged lines	Immediate action: control valve opened to 100%, bumped recirculation pump to clear blockage and return flow. Secondary action: Brought down Bleach Plant to perform acid clean on scrubber to better clear lines to reduce likelihood of low flow.	
There	were no exc	ursion even	its or downtime during the	e month of	February 2017.		
There	were no exc	ursion even	its or downtime during the	e month of	March 2017.		
There	were no exc	ursion even	nts or downtime during the	e month of	April 2017.		
There	were no exc	ursion even	its or downtime during the	e month of	May 2017.		
There	were no exc	ursion even	its or downtime during the	e month of	June 2017.		
Base	d on data pro	vided, reaso	onable inquiry, and the be	est of my a	bilities, I certify that the information contained in the	nis report is accurate and complete.	

Based on data pro	vided, reasonable inquiry, and the best of my a	bilities, I certify that the information contained in this	s report is accurate and comple
Name/Title:	Wayne Griffin	General Manager	
Signature:			



TV

CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Chlorine Dioxide Scrubber

Report Period 1/1/17 to 6/30/17

Permit Condition: 04.1

This report is for variations outside of surrogate monitoring parameters or permit condition exceptions.

Inci-		Start	rt Parameter								
dent No.	Date			Duration (Minutes)	Nature and Cause of Incident	Corrective Action					
There were no excursion events or downtime during the month of January 2017.											
There	e were no exc	ursion even	its or downtime during the	e month of	February 2017.						
There	e were no exc	ursion even	its or downtime during the	e month of	March 2017.						
There	e were no exc	ursion even	its or downtime during the	e month of	April 2017.						
There	e were no exc	ursion even	its or downtime during the	e month of	May 2017.						
There	e were no exc	ursion even	ts or downtime during the	e month of	June 2017.						
Base	d on data pro	vided, reaso	onable inquiry, and the be	est of my a	bilities, I certify that the information contained in th	is report is accurate and complete.					

Name/Title: Wayne Griffin General Manager

Signature:



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 2

ΤV

Report Period 1/1/17 to 6/30/17

Permit Conditions 5.C.07.2(A), 5.C.14, & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Corrective Action	
nead	
d liquor, reduced air	
d liquor, reduced air	
nead	
d air, isolated precip	
nead	
quor	
nead	
nead	



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 2

TV

Report Period 1/1/17 to 6/30/17

Permit Conditions 5.C.07.2(A), 5.C.14, & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start		Мс	nitor	(Che	ck One)			
dent No.	Date	Time (am or pm)	% Opacity or ppm	ОРА	TRS	O2	Duration (Minutes)	Nature and Cause of Incident	Corrective Action	
4	3/6/2017	6:48 AM	-	х			17	Monitor out of alignment	Re aligned optical head	
5	3/7/2017	1:49 PM	-	х			41	Monitor out of alignment	Re aligned optical head	
6	3/7/2017	6:50 PM	-	х			10	Monitor out of alignment	Re aligned optical head	
7	3/16/2017	9:42 AM	-	х			19	Monitor out of alignment	Re aligned optical head	
8	3/21/2017	5:20 PM	-	х			25	Monitor out of alignment	Re aligned optical head	
9	3/22/2017	3:55 AM	-	х			25	Monitor out of alignment	Re aligned optical head	
10	3/23/2017	1:15 PM	-	х			20	Monitor out of alignment	Re aligned optical head	
11	3/24/2017	2:55 AM	-	х			10	Monitor out of alignment	Re aligned optical head	
12	3/24/2017	6:50 AM	-	х			30	Monitor out of alignment	Re aligned optical head	
13	3/24/2017	10:12 AM	-	х			33	Monitor out of alignment	Re aligned optical head	
14	3/24/2017	8:04 PM	-	х			11	Monitor out of alignment	Re aligned optical head	
15	3/25/2017	3:48 AM	-	х			22	Monitor out of alignment	Re aligned optical head	
1	4/6/2017	9:50 PM	-	х			10	Monitor out of alignment	Re aligned optical head	
2	4/9/2017	3:45 PM	-	х			25	Monitor out of alignment	Re aligned optical head	
3	4/13/2017	7:34 AM	-	х			15	Monitor out of alignment	Re aligned optical head	
4	4/13/2017	3:20 PM	-	х			15	Monitor out of alignment	Re aligned optical head	
1	5/2/2017	10:45 AM	-	х			15	Monitor out of alignment	Re aligned optical head	
2	5/2/2017	8:42 PM	-	х			33	Monitor out of alignment	Re aligned optical head	
3	5/3/2017	8:30 AM	-	х			30	Monitor out of alignment	Re aligned optical head	
4	5/4/2017	8:05 PM	-	х			10	Monitor out of alignment	Re aligned optical head	
5	5/6/2017	10:12 AM	45	х			6	Monitor out of alignment	Re aligned optical head	
6	5/6/2017	10:45 AM	-	х			10	Monitor out of alignment	Re aligned optical head	
7	5/9/2017	1:48 PM	44	х			19	Monitor out of alignment	Re aligned optical head	
8	5/24/2017	4:18 PM	80	х			6	Unknown - Heavy thunderstorm and rain in area	No action - Rain decreased	
9	5/28/2017	9:00 AM	-	х			10	Monitor out of alignment	Re aligned optical head	
1	6/6/2017	6:24 PM	36	х			6	Monitor out of alignment	Re aligned optical head	
2	6/6/2017	6:30 PM	58	х			18	Monitor out of alignment	Re aligned optical head	
3	6/9/2017	9:24 AM	36	х			6	Broke chain in south side EP	Adjust air, cut liquor, cleaned out guns, shutdown southside EP for maint.	
4	6/9/2017	10:48 AM	avg>20%	х			330	Broke chain in south side EP	Adjust air, cut liquor, cleaned out guns, shutdown southside EP for maint.	
5	6/9/2017	6:12 PM	avg>20%	х			324	Broke chain in south side EP	Adjust air, cut liquor, cleaned out guns, shutdown southside EP for maint.	
6	6/12/2017	12:42 PM	avg>20%	х			78	Broken chain in south side of EP	Pulled liquor, adjusted air, isolated south side to make repairs	
7	6/12/2017	2:00 PM	avg>20%	х			930	Broken chain in south side of EP	Pulled liquor, adjusted air, isolated south side to make repairs	
8	6/12/2017	2:00 PM	-	Х			30	Monitor out of alignment	Re aligned optical head	
9	6/12/2017		36	х				Broken chain in south side of EP	Pulled liquor, adjusted air, isolated south side to make repairs	
10	6/13/2017	6:00 PM	-	Х				Monitor out of alignment	Re aligned optical head	
11	6/13/2017	6:06 PM	-	Х			6	Monitor out of alignment	Re aligned optical head	
12	6/13/2017	6:30 PM	-	Х			6	Monitor out of alignment	Re aligned optical head	
13	6/14/2017	12:36 AM	-	х				Monitor out of alignment	Re aligned optical head	
14	6/19/2017	8:47 PM	-	Х			6	Monitor out of alignment	Re aligned optical head	

resolute Forest Products ID 2505

Resolute Forest Products – Catawba Mill 5300 Cureton Ferry Road Post Office Box 7 Catawba, SC 29704-0007

CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 2

TV

Report Period 1/1/17 to 6/30/17

Permit Conditions 5.C.07.2(A), 5.C.14, & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start (Consider Monitor (Check One)							
dent No.	Date	Time (am or pm)	or ppm	OPA	TRS	O2	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
15	6/19/2017	9:23 PM	-	х			6	Monitor out of alignment	Re aligned optical head
16	6/27/2017	10:15 AM	-	х			75	Quarterly PM	Quarterly PM

Name/Title:	Wayne Griffin	General Manager
Signature:		



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Lime Kiln No. 2

Report Period 1/1/17 to 6/30/17

Permit Conditions 5.C.07.2(A), 5.C.07.12(B), 5.C.17(A), & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start	%	Мс	nitor	(Che	ck One)		
dent No.	Date	Time (am or pm)	Opacity or ppm	ОРА	TRS	02	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
1	1/25/17	2:54 PM	26	,,			6	Chain in lump breaker, had to take gas burner	Removed chain, returned kiln to normal
'	1/25/17	2.54 FIVI	20	Х			0	to low fire and reduced air.	Removed chain, returned kiin to normal
2	1/26/17	9:30 AM	-	Х			90	Monitor preventative maintenance	Blew out units, changed filters, cleaned lenses
1	2/22/17	8:48 AM	-	х			48	Failed morning cal	Cleaned lenses, changed filters, ran cal.
2	2/23/17	9:30 AM	1	х				Preventative maint.	Blew units out, changed filters, cleaned lenses,
	2/20/11	3.00 7 tivi		^			00	Treventative maint.	realigned
1	3/1/17	2:48 PM	66	Х			48	Fuse blew in electrical panel, tripped EP	No mud feed on kiln, cut air, Replaced fuse
2	3/1/17	3:06 PM	avg>20%	Х			72	Fuse blew in electrical panel, tripped EP	No mud feed on kiln, cut air, Replaced fuse
3	3/2/17	11:00 AM	-	Х				Quarterly PM	Completed PM
4	3/4/17	8:36 AM	ı	Х			30	Failed morning cal., zero	Ran cal., OK
5	3/12/17	9:10 AM	-	Х			80	Failed morning cal., zero	Ran cal., OK
1	4/5/17	4:48 AM	33	х			6	Starting up kiln from outage	Stabilize process
2	4/5/17	6:30 AM	26	X			0	Starting up kiln from outage	Stabilize process
3	4/5/17	7:48 AM	39	X				Starting up kiln from outage	Adjusted air, fuel, mud settings
4	4/5/17	8:48 AM	43	X				Starting up kiln from outage	Adjusted air, fuel, mud settings Adjusted air, fuel, mud settings
5	4/5/17	9:06 AM	79	X				Starting up kiln from outage	Adjusted air, fuel, mud settings Adjusted air, fuel, mud settings
6	4/5/17	9:18 AM	25	X				Starting up kiln from outage	Adjusted air, fuel, mud settings Adjusted air, fuel, mud settings
7	4/5/17		28	X				Starting up kiln from outage	Adjusted air, fuel, mud settings Adjusted air, fuel, mud settings
8	4/22/17	3:36 PM	33	X				EP tripped	Started up EP
9	4/23/17		45	X				Build-up in kiln ID fan	Drained water from kiln ID fan, cleaned lens
10	4/23/17		29	Х			6	Build-up in kiln ID fan	Drained water from kiln ID fan, cleaned lens
11	4/24/17	6:45 AM	-	х				Monitor malfunction and failed cal	Cleaned monitor lens, blew out ports across stack
12	4/25/17	9:15 AM	-	х			45	Failed cal.	Blew out ports across stack, cleaned filters, aligned
1	5/5/17		23	Х				EP tripped	Bad oxygen sensor reading, reset EP
2	5/6/17		65	Х				EP tripped	Bad oxygen sensor reading, reset EP
3		12:00 PM		Х			18	EP tripped	Bad oxygen sensor reading, reset EP
4	5/10/17		-	Х				Failed cal.	Blew out ports across stack, cleaned filters
5	5/11/17	12:50 AM	-	Х			42	Lens dirty	Cleaned monitor lens and checked alignment
6	5/11/17	12:30 PM	-	х			79	High zero drift	Changed air purge filters, checked with calibrated lenses, checked upscale values and forced calibration
7	5/12/17			х				Monitor reading less than zero	Zeroed unit, ran upscale and midrange cal, zeroed again, IT reset sequence.
8	5/14/17	12:42 PM	24	Х			6	Unknown spike	Opacity reading came back down
9	5/15/17			Х			145	High zero drift	Ran cal kit
10	5/18/17	4:30 AM	-	Х			20	Purge failure alarm	Changed purge filters
11	5/19/17	12:30 PM	-	х			60	Purge failure alarm	Checked motor and filters, changed air flow switch
12	5/20/27	5:45 AM	-	Х			40	High zero span drift	Cleaned lens and ran calibration
13		10:54 PM		Х				Unknown spike, major rain storm in area	None
14	5/22/17			Х				Heavy rain caused ID fan to trip out	Restart fan
1	6/9/17			Х				Calibration zero high alarm	Cleaned and calibrated
2	6/25/17			Х				Kiln tripped due to faulty limit switch	Repaired switch and reset kiln
3	6/27/17	12:30 PM	-	Х			135	Calibration zero high alarm	Aligned and ran cals



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Lime Kiln No. 2

Report Period 1/1/17 to 6/30/17

Permit Conditions 5.C.07.2(A), 5.C.07.12(B), 5.C.17(A), & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start	%	Mo	nitor	(Che	ck One)		
dent No.	Date	Time (am or pm)	Opacity or ppm	ОРА	TRS		Duration (Minutes)	Nature and Cause of Incident	Corrective Action
4	6/28/17	10:30 AM	-	Х			60	Quarterly PM	Quarterly PM
5	6/29/17	11:20 AM	-	Х			58	Quarterly PM	Quarterly PM

Name/Title:	Wayne Griffin	General Manager
Signature:		



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Smelt Dissolving Tank Vent Scrubber

ID 2510, ID 5110

SIP, NSPS

Report Period 1/1/17 to 6/30/17

Permit Conditions 5.C.07.2; 07.16(A) & (B); 07.B.MACT.5

This report is for variations outside of surrogate monitoring parameters or permit exception conditions.

	Start	Parameter				
Date	ate Time (am Bump Bressure Flow		(Minutes)	Nature and Cause of Incident	Corrective Action	
were no ex	xcursion eve	ents or downtime during t	the month of	of January 2017.		
were no ex	xcursion eve	ents or downtime during t	the month of	of February 2017.		
were no ex	xcursion eve	ents or downtime during t	the month of	of March 2017.		
4/2/17	8:00 PM	Weak Wash flow	300	Start-up from outage, RB2 tripped (RB3 down)	Stablized process	
were no ex	xcursion eve	ents or downtime during t	the month of	of May 2017.		
6/2/17	5:00 PM	Weak Wash flow	180	Scrubber line plugging up with shell debris	Unplugged line, adjusted valve	
	were no exwere no exwere no exwere no exwere no exwere no ex	were no excursion ever were no excursion ever excursion ever were no excursion ever excursion ev	were no excursion events or downtime during to the property of the pro	Date Time (am or pm) Pump Pressure, Flow, delta P were no excursion events or downtime during the month of t	Date Time (am or pm) Pump Pressure, Flow, delta P Duration (Minutes) Nature and Cause of Incident were no excursion events or downtime during the month of January 2017. were no excursion events or downtime during the month of February 2017. were no excursion events or downtime during the month of March 2017. 4/2/17 8:00 PM Weak Wash flow 300 Start-up from outage, RB2 tripped (RB3 down) were no excursion events or downtime during the month of May 2017.	

Based	Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.									
Name	e/Title:	Wayne Grif	ffin		General Manager					
Signa	ture:									



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 3

Report Period 1/1/17 to 6/30/17

Permit Conditions 5.C.07.3, 5.C.07.12, 5.C.15, & MACT.5(A2)

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start		Мо	nitor	(Chec	k One)		
dent	Date	Time (am	% Opacity or ppm				Duratio	Nature and Cause of Incident	Corrective Action
No.		or pm)	ог ррпп	ОРА	TRS	02	n (Minutes)		
							, ,		
There	were no exc	cursion eve	nts or down	ime d	uring t	he m	onth of Ja	nuary 2017.	
There	were no exc	cursion eve	nts or down	ime d	uring t	he m	onth of Fe	bruary 2017.	
1	3/2/17	3:40 PM	-	х			170	Quarterly PM	Completed PM
2	3/15/17	10:54 AM	40	Х			6	Too many vent doors opened during rod out	Closed vent doors
There	were no exc	cursion eve	nts or down	ime d	uring t	he m	onth of Ap	oril 2017.	
1	5/27/17	12:54 PM	Avg>20%	х			84	Damper on tertiary fan stuck	Cut liquor, Closed damper
2	5/27/17	2:45 PM	ı	х			6	High opacity	Cleaned lens on monitor
3	5/28/17	2:06 AM	Avg>20%	х			60	West field tripped	Cut liquor burn, cut back on fans
4	5/28/17	2:12 AM	46	х			6	West field tripped	Cut liquor burn, cut back on fans
5	5/28/17	2:30 AM	37	х			6	West field tripped	Cut liquor burn, cut back on fans
6	5/28/17	2:42 AM	39	х			6	West field tripped	Cut liquor burn, cut back on fans
7	5/29/17	10:24 PM	36	х			6	West field tripped	Cut liquor burn, cut back on air, closed west inlet gate, checked rappers and agitators
8	5/29/17	10:18 PM	Avg>20%	х			66	West field tripped	Cut liquor burn, cut back on air, closed west inlet gate, checked rappers and agitators
9	5/30/17	8:12 AM	43	х			6	Closed east inlet to blow out westside to dislodge suspected build up	Completed task and opened East inlet
10	5/30/17	11:18 AM	43	х			6	Closed east inlet to blow out westside to dislodge suspected build up	Completed task and opened East inlet
1	6/5/17	7:42 AM	37	х			36	TR 2 west side tripped, required maintenance and EP entry	Pulled liquor, shut tert. fan, cut back air
2	6/5/17	8:42 AM	37	х			18	TR 2 west side tripped, required maintenance and EP entry	Pulled liquor, shut tert. fan, cut back air
3	6/5/17	9:48 AM	37	х			6	TR 2 west side tripped, required maintenance and EP entry	Pulled liquor, shut tert. fan, cut back air
4	6/5/17	1:12 PM	37	х			54	TR 2 west side tripped, required maintenance and EP entry	Pulled liquor, shut tert. fan, cut back air
5	6/5/17	2:36 PM	37	х			66	TR 2 west side tripped, required maintenance and EP entry	Pulled liquor, shut tert. fan, cut back air
6	6/5/17	5:06 PM	37	х			42	and EP entry	Pulled liquor, shut tert. fan, cut back air
7	6/5/17	6:36 PM	37	х			48	TR 2 west side tripped, required maintenance and EP entry	Pulled liquor, shut tert. fan, cut back air
8	6/5/17	7:54 AM		х			756	TR 2 west side tripped, required maintenance and EP entry	Pulled liquor, shut tert. fan, cut back air
9	6/27/17	2:05 PM	-	Х			117	Quarterly PM	Quarterly PM
				<u> </u>	<u> </u>				

Name/Title:	Wayne Griffin	General Manager
Signature:		



NSPS

CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 3

Report Period 1/1/17 to 6/30/17

Permit Condition 5.C.07.12(B)

This report is for indicated excessive NOx (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

Inci-		Start	%	Мо	onitor	(Che	ck One)		
dent No.	Date	Time (am or pm)			TRS	O2	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
1	1/8/17	12:05 PM	1		х		10	Unknown monitor malfunction	Monitor returned to normal
1	2/23/17	6:15 AM	ı		х		1905	Monitor malfunction after cal cycle complete	Changed bad pump on NOx unit, changed out cal. gas bottle, ran cal.
2	2/28/17	10:00 AM	-		х		505	Quarterly PM	Completed PM
1	3/21/17	5:00 PM	-		х		360	Thermoelectric cooler started to go bad	Installed spare TE cooler from store room
2	3/22/17	8:00 AM	-		х		470	TE cooler springs damaged	Replaced springs, installed spare TE cooler from caustic area
1	4/1/17	7:15 PM	ı		х			Monitor and boiler starting up after extended shutdown	Run normal and initial calibration
2	4/18/17	6:15 AM	-		х		180	Failed morning cal.	Installed new NOx bottle and recal.
3	4/26/17	11:20 AM	-		х		40	O2 level reading low	Replaced citi cell, ran initial cal.
There	were no e	xcursion ev	ents or do	owntin	ne duri	ing th	e month of	May 2017.	
1	6/16/17	8:00 AM	-		х		90	Failed morningi cal, span drift	Adjusted PIVIT Voltage, ran Initial and normal
2	6/26/17	9:30 AM	-		х		150	Quarterly PM	Quarterly PM
3	6/26/17	2:00 PM	-		х		180	Quarterly PM	Quarterly PM
4	6/29/17	8:37 AM	ı		х		83	Work for RB3 TRS	Completed work
		ı	1				ı	<u> </u>	+

Name/Title:	Wayne Griffin	General Manager
Signature:		



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 2

SIP

Report Period 1/1/17 to 6/30/17

Permit Condition 5.C.07.14

This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

Inci-			%	Mo	onitor	(Che	ck One)		
dent No.		Start Time (am or pm)	Opacity or ppm		TRS	O2	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
There	were no	excursion ev	ents or do	owntin	ne dur	ng th	e month of	January 2017.	
1	2/12/17	7:55 PM	-		х		95	Stack O2 not reading	Replaced citi cell, replaced citi cell enclosure, calibrated output, ran initial cal.
4	0/4/47	0.00 DM					0.10	0 4 4 84	0 11 174
1	3/1/17	2:30 PM	-		Х			Quarterly PM	Completed PM
2	3/6/17	7:00 PM	-		Х		40	TRS span unreasonable	Ran initial and normal cal.
1	4/9/17	8:25 AM	-		х		515	Failed cal. TRS span drift and O2 drift	Repaired air supply to probe box (melted in two places due to smelt during RB upset), calibrated remote O2 board, ran initial cal.
2	4/9/17	10:20 PM	-		Х		25	Production wanted unit checked	Ran normal cal, OK
3	4/11/17	7:50 AM	-		х		40	Failed cal	Tightened loose connection to opacity monitor, ran cal, OK
4	4/11/17	5:00 PM	-		Х			Bad data	Unknown cause
5	4/16/17	8:00 AM	-		Х		25	Checking system	Ran normal cal, OK
6	4/19/17	8:00 AM	-		х		435	Checking system	Install new probe heater, TRD and controller. Ran normal and initial cal
7	4/27/17	9:00 AM	-		х		780	Low TRS readings	Checked system, ran cal, OK
1	5/29/17	6:30 AM	-		х		45	Failed cal	Ran normal cal, OK
1	6/3/17	9:40 AM	-		х		50	Failed morning cal, TRS span drift	Ran manual and normal cal., OK
2	6/9/17	8:00 AM	-		х		60	Failed morning cal, TRS span drift	Ran initial and normal cal
3	6/11/17	9:30 AM	-		х		30	Alarm on TRS span drift	Ran cal, cleared inactive alarms
4	6/23/17	12:30 PM	-		х		45	Failed morning cal.	Cal gas bottle changed, ran initial and normal cal
5	6/27/17	9:00 AM	-		Х		250	Quarterly PM	Quarterly PM
6	6/29/17	8:37 AM	=		Х		83	Zero drift in negative	Run initial and normal cal

Name/Title:	Wayne Griffin	General Manager
Signature:		



NSPS

CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Recovery Boiler No. 3

Report Period 1/1/17 to 6/30/17

Permit Condition 5.C.07.15

This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

	Monitor (Check One)		(Che	ck One)					
Inci- dent No.	Date	Start Time (am or pm)	% Opacity or ppm		TRS		Duration (Minutes)	Nature and Cause of Incident	Corrective Action
There	were no ex	xcursion ev	ents or do	owntin	ne duri	ng the	e month of	January 2017.	
1	2/24/17	8:00 AM	-		х		360	Failed calibration	Changed bad pump on NOx unit, changed out cal gas bottle, ran cal.
2	2/26/17	6:15 AM	-		х		375	Failed morning cal., TRS span low	Changed pump, cleaned orifice, changed kicker assembly, ran normal cal.
3	2/27/17	7:00 AM	-		Х			Failed morning cal., TRS span low	Ran manual and normal cal
5		10:00 AM 12:00 PM	n/a		x			Quarterly PM TRS high due to burning fossil fuel in RB3 (no liquor burn)	Completed PM Closed off ESP wet bottom, reduced temp on salt cake mix tank, cut back on air
								inque: 2011)	out out of mix turn, out out or un
1	3/2/17	6:00 AM	-		х		35	Failed morning cal., TRS span	Ran cal.
2	3/3/17	5:30 AM	-		х			Failed morning cal., TRS span	Ran initial cal, OK
3	3/4/17	6:30 AM	-		х			Failed morning cal., TRS span	Ran cal, OK
4	3/5/17	6:30 AM	-		х		320	Failed morning cal., TRS span	Ran cal, OK
5	3/8/17	6:00 AM	-		х		174	Failed monning cal. TRS span	Ran initial and normal cal.
6	3/9/17	6:00 AM	-		х		145	Failed monning cal. TRS span	Ran initial cal.
7	3/10/17	6:30 AM	-		х		60	Failed monning cal. TRS span	Ran initial cal.
8	3/11/17	6:30 AM	-		х		200	Failed monning cal. TRS span	Ran cal, OK
9	3/13/17	7:30 AM	-		х		90	Failed monning cal. TRS span	Ran cal, OK
10	3/14/17	6:40 AM	-		х		660	Failed morning cal, TRS span and O2	Found bad solenoid, ran cal, OK
11	3/24/17	6:30 AM	1		х		130	Failed morning cal, TRS span	Ran cal, OK
There	were no ex	xcursion ev	ents or do	owntin	ne duri	ng the	e month of	April 2017.	
1	5/11/17	8:00 AM	-		х		76	High TRS span	Ran initial and normal cal.
2	5/16/17	6:30 AM	-		х		150	Failed morning cal, TRS span	Replaced cal gas cylinder, ran cal
3	5/16/17	4:00 PM	-		Х		480	High temp alarm	Replaced TE cooler in control box on stack
1	6/15/17	8:40 AM	-		Х		135	High drift on TRS span	Ran initial cal.
2	6/18/17	8:00 AM	-		х		90	Failed morning cal, TRS span drift	Adjusted cal. factor, ran initial and normal cal.
3	6/19/17	6:30 AM	-		х		165	Failed morning cal, TRS span drift	Adjusted cal. gas regulator, ran initial and normal cal
4	6/25/17	9:00 AM	-		х		80	Probe alarm	Replaced probe thermocouple, reset controller
5	6/26/17	9:30 AM	-		х		150	Quarterly PM	Quarterly PM
6	6/26/17	2:00 PM	-		х		180	Quarterly PM	Quarterly PM
7	6/29/17	8:37 AM	-		Х		83	TRS zero drift negative	Ran initial and normal cal.

Name/Title:	Wayne Griffin	General Manager
Signature:		
Signature.		



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Lime Kiln No. 2

NSPS

Report Period 1/1/17 to 6/30/17

Permit Conditions 5.C.07.17(A)

This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

Inci-			%	Мо	nitor	(Che	ck One)		
dent No.	Date	Start Time (am or pm)	Opacity or ppm	ОРА	TRS	02	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
-6000								January 2047	
nere	were no e	excursion ev	ents or ac	wnum	le dun	ng the	Tionth of	January 2017. I	
1	2/7/17	2:00 PM	-		х		90	Air leak on supply line	Replaced air line, changed probe filter, ran cal.
1	3/1/17	9:00 AM	-		x		50	O2 span drift warning	Checked pressures and flows, cleaned orifice, rebuilt pump, changed scrubber beads, changed small inline filters, ran man and init cals
2	3/1/17	9:50 AM	-		Х			Quarterly PM	Flushed sample line, completed PM
3	3/2/17	6:50 AM	-		Х		15	Failed morning cal, TRS span drift	Ran cal.
4	3/13/17	9:00 AM	-		х		300	O2 span drift warning	Visual inspection. Found TE cooler temp @27.5 F. Checked watt low and relays. Checked drain lines for ice; suspect TE cooler drain froze, but not sure. Ran init and normal cals
5	3/18/17	6:56 AM	-		Х		16	Failed morning cal, O2 span drift	Ran initial cal.
6	3/19/17	6:40 AM	-		х		25	Failed morning cal, O2 span drift	Ran manual cal, made adjustments to citi cell, ran initial cal
		0.00.414						5 11 1 1 7 7 7 7 1 1 1 1	
1	4/5/17	6:30 AM	-		Х			Failed morning cal, TRS span drift	D 1 111 1
2	4/6/17	6:30 AM	-		Х		104	Failed morning cal, TRS span drift	Ran initial cal.
3	4/7/17	10:30 AM	-		х			Failed morning cal, TRS span drift	Cleaned educator, replaced quartz orifice, checked for leaks, ran normal cal.
4	4/13/17	1:26 PM	-		Х			Checking system	Ran initial and normal cal
5	4/15/17	6:54 AM	-		Х			Low TRS span	Ran initial cal
6	4/16/17	6:57 AM	-		Х			Low TRS span	Ran initial cal
7	4/16/17	9:50 AM	-		Х		15	Checking system	Ran normal cal. OK
8	4/17/17	11:00 AM	-		х		780	High TRS readings	Changed probe filter, cleaned and replaced solenoids, changed citi cell, adjusted remote O2 circuit board
9	4/18/17	12:00 AM	-		х		450	High TRS readings	Checked tubing for leaks, adjusted citi cell zero and span, adjusted O2 display board.
10	4/18/17	8:00 AM	-		х		810	High TRS readings	Cleaned out eductor, replaced orifice and o- ring, changed critical orifice in 43i unit, fixed leak under heat exchanger, tightened all connections, ran cal
	= 10=	4.65.1.1							
1	5/27/17	4:20 AM	-		Х		40	Checking system	Ran normal cal. OK
1	6/3/17	6:30 AM	_		Х		155	Failed morning cal TRS span and O2 zero	Ran manual and normal cal., OK
2	6/5/17	12:00 PM	_		X			Calibration gas bottle empty	Changed bottle, ran calibration
3	6/28/17	9:30 AM	-		X			Quarterly PM	Quarterly PM

Name/Title:	Wayne Griffin	General Manager
Signature:		



CONTINUOUS EMISSION MONITOR QUARTERLY REPORT LOG

Combination Boiler No. 1

SIP

Reporting Period 4/1/17 to 6/30/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start	%	Mo	nitor	(Che	ck One)	EP		
dent No.	Date	Time (am or pm)	Onacity	ОРА	TRS	O2	Duration (Minutes)	Bypass Time	Nature and Cause of Incident	Corrective Action
1	4/2/17	1:48 PM	56	Х			6		Boiler Tripped	Restart boiler
2	4/7/17	3:30 AM	55	Х			6		High steam load	Picked up on RB's
3	4/8/17	11:24 AM	-	х			312	312	Fire in south hopper, tripped EP	Took all bark out, bypassed EP, washed EP and reset unit
4	4/11/17	11:39 AM	-	х			81	81	Electrician need to work on fire alarm sensors in EP	Took out all bark, bypassed EP, washed EP and repaired fire sensors
5	4/12/17	8:42 AM	42	Х			12		Steam header swing	Increased air and cut back bark
6	4/25/17	7:20 AM	-	Х			370		Out of alignment	Aligned
7	4/25/17	7:51 PM	-	Х			24		Reading low	On stack calibration
									-	
1	5/7/17	5:49 AM	-	Х			84	84	Fire in hopper	Remove bark from boiler, bypass EP
2	5/15/17	7:00 PM	-	Х			66	66	Fire in hopper	Remove bark from boiler, bypass EP
3	5/17/17	10:47 PM	-	Х			101	101	Fire in hopper	Remove bark from boiler, bypass EP
4	5/21/17	10:42 AM	-	Х			80	80	Fire in hopper	Remove bark from boiler, bypass EP
5	5/31/17	10:16 AM	-	Х			54	54	Fire in hopper	Remove bark from boiler, bypass EP
1	6/5/17	6:24 PM	-	Х			42	42	Fire in hopper	Remove bark from boiler, bypass EP
2	6/27/17	2:18 PM	-	Х			42	42	Fire in hopper	Remove bark from boiler, bypass EP
3	6/28/17	2:00 PM	-	Х			115		Quarterly PM	Quarterly PM
4	6/29/17	9:00 AM	-	Х			60		Quarterly PM	Quarterly PM

Based on data p	provided, reasonable	inquiry, and the best of my abilities, I	certify that the information contained in this report is accurate and complete.
Name/Title:	Wayne Griffin	General Manager	
Signature:			_



CONTINUOUS EMISSION MONITOR QUARTERLY REPORT LOG

Combination Boiler No. 2

SIP

Reporting Period 4/1/17 to 6/30/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start	%	Мс	nitor	(Che	ck One)	EP		
dent No.	Date	Time (am or pm)		ОРА	TRS	O2	Duration (Minutes)	Bypass Time	Nature and Cause of Incident	Corrective Action
1	4/2/17	12:24 AM		Х			6		Blowing IK's	Stopped blowing IK
2	4/2/17	10:06 AM		Х			6		Boiler tripped	Reset boiler
3	4/2/17	2:24 PM		Х			6		Boiler tripped	Reset boiler
4	4/3/17	8:00 PM		Χ			6		Field tripped	Reset field, cut back on air
5	4/4/17	1:42 PM		Х			6		High load	Increase FD fan
6	4/4/17	2:00 PM	43	х			6		High load	Cut bark
7	4/8/17	11:24 AM	65	х			6		RB3 tripped, CB1 tripped due to fire in hopper causing high steam load	Adjusted fuel and air, cut TG1&2, shut down Evap 2 and 3, cut mill back
8	4/12/17	8:42 AM	63	Х			12		Steam header swing	Increased air and cut back bark
9	4/14/17	4:12 AM		Х			12		Steam header swing	Increased air and cut back bark
10	4/23/17	8:42 PM		Х			6		Unknown increase in opacity	Monitored air and bark
11	4/29/17	9:18 PM	55	Х			6		High mill load	Cut back on air
1	5/10/17	11:30 PM	44	х			6		High mill load and blowing IK	Stopped blowing IK
2	5/15/17	3:12 PM	48	Х			6		High steam load, blowing IK	Stopped blowing IK
3	5/22/17	10:06 PM	51	Х			6		Blowing IK's	Stopped blowing IK
4	5/22/17	11:12 PM	44	Х			6		Heavy rapping of EP fields	Place field rappers in automatic
5	5/23/17	12:03 PM	-	Х			69	69	Fire in EP	Pulled bark, reset EP
1	6/2/17	12:42 PM	-	Х			18	18	Fire in hopper	Pulled bark, washed with fire water
2	6/13/17	2:48 PM	58	Х			6		High header pressure, blowing IK's	Stopped blowing IK's
3	6/22/17	11:54 PM	43	Х			6		High steam load, header was low	Reduced bark and air
4	6/27/17	2:18 AM	42	Х			6		Blowing IK's	Stopped blowing IK's
5	6/28/17	2:45 PM	-	Х			65		Quarterly PM	Quarterly PM
6	6/29/17	7:42 PM	44	Х			6		Blowing IK's	Stopped blowing IK's

Name/Title:	Wayne Griffin	General Manager
Signature:		
•		

resolute Forest Products ID 2605

Resolute Forest Products – Catawba Mill 5300 Cureton Ferry Road Post Office Box 7 Catawba, SC 29704-0007

CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Combination Boiler No. 1

SIP

Report Period 1/1/17 to 6/30/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

No. Start Time (ar or pm) 1 1/6/17 7:36 AN	or ppm	pacity				k One) EP			
	1 50		OPA .	TRS	O2	Duration (Minutes)	Bypass Time	Nature and Cause of Incident	Corrective Action
	1 50								
		59	Χ			6		Oil gun dirty	Removed oil gun
2 1/6/17 10:12 PM			Х			6		Heavy load, oil gun got dirty	Changed out oil gun, cut back on bark
3 1/7/17 1:24 PM			Х			6		Bad oil gun, wet bark	Changed out oil gun, cut back on bark
4 1/7/17 5:36 PM			Х			6		Bad oil gun, wet bark	Changed out oil gun, cut back on bark
5 1/7/17 10:06 PM			Х			6		Bad oil gun, wet bark	Changed out oil gun, cut back on bark
6 1/8/17 12:00 AM			Х			12		Wet bark	Cut back on bark and air
7 1/9/17 4:42 AN	1 42	42	Χ			6		High mill load, wet bark	Cut back on bark and air
8 1/27/17 7:48 AM	1 -	-	х			138	138	Fire in hopper	Stopped bark, bypassed EP, washed hoppers, switched to gas, returned bark and EP
1 2/22/17 7:48 AM	1 -	-	х			120	120	Cleaned hopper on #1 CB	Pulled bark, added gas, bypassed EP, completed hopper clean and returned to EP
2 2/22/17 12:00 PM	1 41	41	х			6		Spike after hopper clean and put EP back in service	Adjusted air, increased gas pressure
1 3/2/17 3:12 PM	1 43	43	х			6		850# header dropped after black liquor diverted in RB2	Decreased bark and FD air
2 3/3/17 9:42 AM	1 -	-	Х			78		Quarterly PM	Completed PM
1 4/2/17 1:48 PM			Х			6		Boiler Tripped	Restart boiler
2 4/7/17 3:30 AM	1 55	55	Х			6		High steam load	Picked up on RB's
3 4/8/17 11:24 AM	1 -	-	х			312		Fire in south hopper, tripped EP	Took all bark out, bypassed EP, washed EP and reset unit
4 4/11/17 11:39 AM	1 -	-	х			81	81	Electrician need to work on fire alarm sensors in EP	Took out all bark, bypassed EP, washed EP and repaired fire sensors
5 4/12/17 8:42 AM	1 42	42	Х			12		Steam header swing	Increased air and cut back bark
6 4/25/17 7:20 AM		-	Х			370		Out of alignment	Aligned
7 4/25/17 7:51 PM	1 -	-	Х			24		Reading low	On stack calibration
							-		
1 5/7/17 5:49 AM		-	Х			84		Fire in hopper	Remove bark from boiler, bypass EP
2 5/15/17 7:00 PM		-	Х			66		Fire in hopper	Remove bark from boiler, bypass EP
3 5/17/17 10:47 PM		-	Х			101		Fire in hopper	Remove bark from boiler, bypass EP
4 5/21/17 10:42 AM		-	Х			80		Fire in hopper	Remove bark from boiler, bypass EP
5 5/31/17 10:16 AM	1 -	-	Х			54	54	Fire in hopper	Remove bark from boiler, bypass EP
1 6/5/17 6:24 PM	1 -	-	Х			42	42	Fire in hopper	Remove bark from boiler, bypass EP
2 6/27/17 2:18 PM		-	Х			42		Fire in hopper	Remove bark from boiler, bypass EP
3 6/28/17 2:00 PM		-	Х			115		Quarterly PM	Quarterly PM
4 6/29/17 9:00 AM		-	х			60		Quarterly PM	Quarterly PM

Name/Title:	Wayne Griffin	General Manager
Signature:		



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Combination Boiler No. 2

SIP

Report Period 1/1/17 to 6/30/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start	%	Mo	nitor	(Che	ck One)	EP		
dent No.	Date	Time (am or pm)	Opacity	ОРА	TRS	02	Duration (Minutes)	Bypass Time	Nature and Cause of Incident	Corrective Action
1	1/3/17	6:36 AM	72	Х			18		Wet bark, blowing IK, too much air	Cut back on bark and air
2	1/3/17	7:00 AM	-	х			120	120	Fire in hopper, false alarm	Bypassed EP, Pulled bark, put fuel in, called maintenance to fix
3	1/3/17	12:46 PM	-	х			15	15	Wire broke on fire sensor	Bypassed EP, Pulled bark, put fuel in, fixed wire
4	1/6/17	6:24 PM	54	х			6		Heavy load, wet bark, bad bark west end	Checked oil guns, swapped oil guns, cut bark, adjusted air
5	1/7/17	4:54 PM	76	Х			6		Wet bark	Cut back on bark and fuel
6	1/7/17	7:06 PM	55	Х			6		Wet bark	Cut back on bark and fuel
7	1/7/17	7:24 PM	46	Х			6		Wet bark	Cut back on bark and fuel
8	1/9/17	12:30 AM	73	Х			6		Wet bark	Cut back on bark
9	1/9/17	3:42 AM	61	Х			6		Wet bark	Cut back on bark
10	1/12/17	6:42 AM	50	Х			6		Wet bark	Cut back on bark and air
11	1/15/17	2:12 PM		х			6		High steam load, blew IK	Cut air, cut bark, cut master, reversed IK
12	1/19/17	12:36 AM	41	Х			6		High steam load, blowing IK's	Cut back on air and bark
13	1/21/17	7:00 AM	-	Х			1275		Excessive dirt drift	Replaced filters, ran cal.
14	1/22/17	8:50 AM		Х			105		Zero cal. Bad	Cleaned lenses, ran stack set., ran cal.
15	1/26/17	8:40 AM	-	Х			26		Monitor alignment	Aligned monitor and cleaned lenses
16		8:15 AM		х			455		Zero cal. Bad - fault	Reset Iris lens in head on stack and recalibrated, cleaned lense and realigned
17	1/30/17	8:42 AM	46	Х			6		Low air	Cut bark, added air
1	2/2/17	9:36 AM	-	Х			286		Bypass EP to repair rotary joint	Bark out of boiler
2	2/7/17	5:11 PM		Х			46	46	Fire in hopper	Pulled bark, put gas in, bypassed EP
3	2/14/17	12:00 PM	52	Х			6		Header swing	Reduced firing
4	2/17/17	3:42 PM	43	Х			6		Blowing IK	Stopped blowing IK
5		7:24 PM	6	Х			6		Blowing IK	Stopped blowing IK
6	2/21/17	2:35 AM	-	Х			104	104	Fire in hopper	Pulled bark, put gas in, bypassed EP
1	3/1/17	1:18 PM	43	х			6		FD Damper not controlling	Reduced air, put FD damper and fluid drive in manual
2	3/1/17	1:30 PM	45	х			6		FD Damper not controlling	Reduced air, put FD damper and fluid drive in manual
3	3/2/17	3:30 AM	41	х			6		FD Damper not controlling	Reduced air, put FD damper and fluid drive in manual
4	3/3/17	9:36 AM	-	Х			84		Quarterly PM	Completed PM
5	3/3/17	7:54 PM		Х			156		Reading below zero	Ran cal several times, still having issues
6	3/3/17	11:30 PM		Х			120		Reading below zero	Checked alignment, ran sets and cal.
7	3/7/17	1:36 AM		Х			6		Dirty oil gun	Removed and cleaned gun
8		3:18 PM		Х			12		Tip broke off oil gun	Removed and repaired gun
9		5:18 PM		Х			6		Oil pressure issues on guns	Cut bark, raised oil circulating pressure
10	3/22/17	1:36 AM	43	Х			6		Unknown increase in opacity	Monitored air and bark
11	3/23/17	3:30 AM	-	х			6		6-min alarm went high, 1-min values showed normal	Investigating incident
1	4/2/17	12:24 AM	41	х			6		Blowing IK's	Stopped blowing IK
2		10:06 AM		X			6		Boiler tripped	Reset boiler
3		2:24 PM		X			6		Boiler tripped	Reset boiler
4	4/3/17	8:00 PM		Х			6		Field tripped	Reset field, cut back on air
5		1:42 PM		Х			6		High load	Increase FD fan
6		2:00 PM		х			6		High load	Cut bark
7	4/8/17	11:24 AM	65	х			6		RB3 tripped, CB1 tripped due to fire in hopper causing high steam load	Adjusted fuel and air, cut TG1&2, shut down Evap 2 and 3, cut mill back
8		8:42 AM		Х			12		Steam header swing	Increased air and cut back bark
9		4:12 AM		Х			12		Steam header swing	Increased air and cut back bark
10		8:42 PM		Х			6		Unknown increase in opacity	Monitored air and bark
11	4/29/17	9:18 PM	55	Х			6		High mill load	Cut back on air

resolute Forest Products ID 3705

Resolute Forest Products – Catawba Mill 5300 Cureton Ferry Road Post Office Box 7 Catawba, SC 29704-0007

CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Combination Boiler No. 2

SIP

Report Period 1/1/17 to 6/30/17

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7

This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

Inci-		Start	%	Mo	nitor	(Che	ck One)	EP		
dent No.	Date	Time (am			TRS	O2	Duration (Minutes)	Bypass Time	Nature and Cause of Incident	Corrective Action
1	5/10/17	11:30 PM	44	Х			6		High mill load and blowing IK	Stopped blowing IK
2	5/15/17	3:12 PM	48	Х			6		High steam load, blowing IK	Stopped blowing IK
3	5/22/17	10:06 PM	51	Х			6		Blowing IK's	Stopped blowing IK
4	5/22/17	11:12 PM	44	Х			6		Heavy rapping of EP fields	Place field rappers in automatic
5	5/23/17	12:03 PM	-	Х			69	69	Fire in EP	Pulled bark, reset EP
1	6/2/17	12:42 PM	-	Х			18	18	Fire in hopper	Pulled bark, washed with fire water
2	6/13/17	2:48 PM	58	Х			6		High header pressure, blowing IK's	Stopped blowing IK's
3	6/22/17	11:54 PM	43	Х			6		High steam load, header was low	Reduced bark and air
4	6/27/17	2:18 AM	42	Х			6		Blowing IK's	Stopped blowing IK's
5	6/28/17	2:45 PM	-	Х			65		Quarterly PM	Quarterly PM
6	6/29/17	7:42 PM	44	Х			6		Blowing IK's	Stopped blowing IK's

Name/Title:	Wayne Griffin	General Manager
Signature:		



CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

Low Volume High Concentration Gas System

Report Period 1/1/17 to 6/30/17

ID 2605, ID 3705 SIP, NSPS

i.C.08.1(B), 5.C.08.2(B1), 5.C.08.7, & MACT.1(C)

r multiple effect evaporator systems exceeding 5 minutes duration, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	LVHC System Leg	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
1	1/10/2017	5:35 PM	FL: Stand pipe	11	Low header pressure	Stabilized header pressure, returned gases
2	1/13/2017	12:43 PM	FL: Stand pipe	10	Low header pressure	Stabilized header pressure, returned gases
3	1/30/2017		PH: LVHC	12	Low 150 header swing	Stabilized 150 header
4	1/30/2017	7:19 PM	PH: LVHC	13	Low 150 header swing	Stabilized 150 header
					-	
There v	were no excur	sion events	or downtime during the m	onth of Feb	oruary 2017.	
1	3/17/2017	6:13 AM	PH: LVHC	50	Low steam pressure due to RB2 trip; trouble closing Turp decant vent valve	Stabilized steam pressure, called maintenance and manually closed vent valve
2	3/17/2017	7:24 AM	FL: Stand Pipe	7	Vent opened, caused unknown	Called maint., manually closed valve
3	3/17/2017		FL: Stand Pipe	7	Vent opened, caused unknown	Called maint., manually closed valve
4	3/23/2017	6:45 AM	PH: LVHC		Header swing	Stablized pressure, returned gases
5	3/24/2017	6:50 AM	PH: LVHC	13	Header swing	Stablized pressure, returned gases
					<u> </u>	
1	4/2/2017	3:50 AM	PH: Evap #2	120	Starting up evaps from shutdown	Stabilized process
2	4/2/2017		LVHC	17	Starting up fiberline	Stabilized process
3	4/2/2017				Starting up fiberline	Stabilized process
4	4/2/2017	5:28 PM	LVHC		Starting up fiberline	Stabilized process
5	4/3/2017	10:00 AM	FL: Stand Pipe		Process starting up	Stabilized process
6	4/4/2017		PH: LVHC	6	Steam pressure dropped off to ejector	Picked up load to boilers to stabilize steam header
7	4/14/2017	4:16 AM	LVHC	21	Low steam pressure due to RB2/3 trip	Stabilize steam header
8	4/14/2017	11:17 AM			Low steam pressue in header	Stabilize steam header
9	4/25/2017	1:43 AM			Low steam pressure in header	Stabilize steam header
					'	
1	5/4/2017	5:12 PM	LVHC	8	Turbine tripped, low pressure in header	Reset turbine, stabilize steam header
2	5/15/2017				Turbine down, low pressure in header	Open PRV
					, ,	<u> </u>
1	6/20/2017	8:48 PM	LVHC	20	Header swing	Stabilized steam header
2	6/21/2017	11:12 AM			Gas burner tripped	Reset burners
3	6/23/2017	5:09 PM			Unknown	Returned system to boiler

Name/Title:	Wayne Griffin	General Manager
Signature:		



Resolute Forest Products - Catawba Mill Post Office Box 7 Catawba, SC 29704-0007

5300 Cureton Ferry Road

CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

High Volume Low Concentration Gas System

Report Period 1/1/17 to 6/30/17

SIP, NSPS

Permit Conditions 5.C.08.1(B), 5.C.08.2(B1), 5.C.08.7, & MACT.1(C)

This report is for indicated emissions from the fiberline, pulp washing systems, oxygen delignification, and screening/knotting systems exceeding 5 minutes duration, or permit condition exceptions.

Inci- dent No.	Date	Start Time (am or pm)	HVLC System Leg	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
1	1/7/2017	1:20 PM	PH: HVLC	71	Belts burned off #2 fan	Replaced belts
2	1/30/2017	7:19 AM	FL: HVLC	21	Low header pressure	Stabilized pressure, returned gases
1	2/17/2017	4:22 PM	FL: HVLC	6	Process upset	Stabilized process
1	3/6/2017	8:32 AM	FL: HVLC	12	Vented due to low flow	Increased flow, reset system
2	3/11/2017	6:56 PM	PH: HVLC	18	Low flow from FL	Drained water out of vent valve
3	3/15/2017	1:23 PM	PH: HVLC	68	Fan belts broke on HVLC system	Replaced belts
4	3/15/2017	2:52 PM	PH: HVLC	51	Fan belts broke on HVLC system	Replaced belts
5	3/16/2017	2:39 AM	PH: HVLC	74	Fan belts broke on HVLC system	Replaced belts
6	3/21/2017	10:47 PM	PH: HVLC	95	Fan belts broke on HVLC system	Replaced belts
7	3/23/2017	6:45 AM	PH: HVLC	10	Header swing	Stablized pressure, returned gases
1	4/2/2017	3:58 AM	FL: Chip Bin	227	Starting up fiberline	Stabilized process
2	4/2/2017	7:27 AM	FL: HVLC	+	Starting up fiberline	Stablized process, returned gases
3	4/2/2017	8:02 PM	FL: HVLC	20	Starting up fiberline	Stablized process, returned gases
4	4/3/2017	9:47 PM	FL: HVLC		Starting up fiberline	Stabilized process
5	4/4/2017	3:11 PM	FL: HVLC	12	Fiberline starting up	Stabilize process
6	4/17/2017	6:27 PM	FL: HVLC		Steam pressure drop	Stablized pressure, returned gases
1	5/1/2017	3:54 PM	PH: HVLC	6	Troubleshooting line plugging issues	Ended troubleshooting
2	5/3/2017	1:33 PM	PH: HVLC		Mist eliminator plugged	Removed and cleaned mist eliminator, returned gases
3	5/5/2017	12:39 AM	PH: HVLC	58	Belts burned off #1 fan	Replaced belts
4	5/7/2017	6:59 AM	FL: HVLC	21		
5	5/12/2017	8:22 PM	PH: HVLC	13	#2 fan speed low	Checked belts, shut down fan and restart
6	5/16/2017	8:29 AM	PH: HVLC	12	Fan speed too low	Drained water out of fan condensate lines
7	5/17/2017	8:47 AM	PH: HVLC	62	Fan speed too low	Shut fans for maintenance
8	5/17/2017	9:55 AM	PH: HVLC	223	Separator plugged. Low vacuum.	Cleaned separator
9	5/17/2017	1:39 PM	PH: HVLC	17	Separator plugged. Low vacuum.	Cleaned separator
				<u> </u>		
1	6/18/2017		PH: HVLC		Fan low speed tripped out fan	Restart fan
2	6/20/2017		PH: HVLC	-	Fan speed too low	Restart fan
3	6/20/2017		FL: HVLC	-	Fan speed too low	Restart fan
4	6/22/2017	6:30 AM	PH: HVLC	26	#2 fan speed probe failed	Restarted fan

resolute Forest Products

Resolute Forest Products – Catawba Mill 5300 Cureton Ferry Road Post Office Box 7 Catawba, SC 29704-0007

Permit Conditions 5.C.08.1(B), 5.C.08.2(B1), 5.C.08.7, & MACT.1(C)

CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

High Volume Low Concentration Gas System

Report Period 1/1/17 to 6/30/17

ID 2605, ID 3705 SIP, NSPS

This report is for indicated emissions from the fiberline, pulp washing systems, oxygen delignification, and screening/knotting systems exceeding 5 minutes duration, or permit condition exceptions.

Incident No.	Date	Start Time (am or pm)	HVLC System Leg	Duration (Minutes)	Nature and Cause of Incident	Corrective Action
5	6/23/2017	2:49 AM	PH: HVLC	/	Low speed on #2 fan due to speed probe failure	Worked on and fixed speed probe
6	6/23/2017	6:59 AM	PH: HVLC	83	Itailure	Worked on and fixed speed probe
7	6/23/2017	8:30 AM	PH: HVLC	37	Low speed on #2 fan due to speed probe	Worked on and fixed speed probe

Name/Title:	Wayne Griffin	General Manager
Signature:		